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APPLICATION

FOR

U.S. PATENT

TITLE: Attachment for Forming Shapes Following Excavation

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ATTACHMENT FOR FORMING SHAPES FOLLOWING EXCAVATION

CROSS-REFERENCE TO RELATED APPLICATIONS

[1] Not Applicable

**STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT**

[2] Not Applicable

**REFERENCE TO A "SEQUENCE LISTING" A TABLE, OR A COMPUTER
PROGRAM LISTING APPENDIX SUBMITTED ON A COMPACT DISC**

[3] Not Applicable

FIELD OF THE INVENTION

[4] This invention pertains to an attachment for forming shapes following excavation. More particularly, this invention pertains to an attachment for vehicles such as skidsteer loaders, back hoes, etc. which can be used in the construction of swimming pool walls, ditches, sidewalks, etc. where curved shapes are required.

DESCRIPTION OF RELATED ART

[5] The use of attachments on skidsteer loaders, backhoes and powered excavating equipment to aid in performing various tasks is known. During the excavation of a swimming pool, it is common to use a skidsteer because of its smaller size and maneuverability. Many swimming pools are excavated using a skidsteer and a standard bucket attachment. Skidsteer loaders with a standard bucket attachment are used to remove dirt from a hole in constructing a swimming pool. However, the standard bucket used on skidsteer loaders or back-hoes leave the walls to a swimming pool requiring significant smoothing out or leveling. This smoothing out process is performed manually by workers using shovels. This manual process of smoothing out the walls is time consuming, requires much effort and is costly. In addition, some areas of the country are very rocky and this adds to the difficulty in manually smoothing out the walls.

BRIEF SUMMARY OF THE INVENTION

[6] This present invention is an attachment for vehicles such as skidsteer loaders, back hoes and powered excavators that can be used to quickly smooth out the walls of a swimming pool following the excavation and prior to the steel reinforcement phase. The attachment is connected to the vehicle and transported to the wall of the swimming pool. The attachment is then lifted and placed in contact with the top of the wall of the swimming pool. The attachment is then lowered to the bottom of the wall of the swimming pool making contact with the wall. The invention quickly smoothes the wall surface of the swimming pool by knocking the dirt and other items to the ground or by cutting any tree limb, rock, etc. that may be in contact with the invention. The process of raising and lowering the attachment while making contact may be repeated as necessary to flatten the surface.

[7] This invention significantly reduces and may even eliminate the need for workers to spend time and effort smoothing the walls. This invention significantly reduces the time required to prepare the walls of a swimming pool, ditch, sidewalk, etc. for the steel reinforcement stage. In addition, this invention improves the safety of swimming pool construction by eliminating the exposure of workers to an operating skidsteer loader in the limited swimming pool area.

[8] This invention reduces the costs of building a swimming pool by reducing the number of workers required in the construction process. In addition, the use of the invention will reduce the amount of gunite required in the swimming pool construction process due to the smoothness of the resulting walls.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

[9] FIG.1 is a front perspective view from a slightly elevated view according to one embodiment of the instant invention;

FIG.2 is a rear perspective view of the attachment shown in FIG.1;

FIG.3 is an overhead plan view of the attachment shown in FIG.1;

FIG.4 is a front perspective view of the attachment shown in FIG.1 from the same elevation;

FIG.5 is a bottom perspective view of the attachment shown in FIG.1;

FIG.6 is a rear perspective view of the attachment shown in FIG.1 from the same elevation;

FIG.7 is a side plane view of the attachment shown in FIG.1;

FIG.8 is an environmental view illustrating a conventional skidsteer loader with the present invention attached.

DETAILED DESCRIPTION OF THE INVENTION

[10] The present invention now will be described more fully hereinafter with reference to the accompanying drawings, in which preferred embodiments of the invention are shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiment set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. Like numbers refer to like elements throughout.

[11] With reference to the drawings, FIG.1 illustrates an attachment according to the instant invention. As illustrated, the attachment includes a curved front surface 11 with beveled edges attached to a base 12. In addition, three support structures 13, 14, and 15 are attached on top of the base 12 and in contact with the curved front surface 11 and the connecting frame 18. A flat surface 19 is connected directly on top of the support

structures 13, 14 and 15. The sides 16 and 17 are connected to the base 12, curved front surface 11, the walls 22 and 23 and the covers 20 and 21.

[12] FIG. 2 shows the connecting frame 18 with 2 large cutouts as well as 2 extensions 24 and 25 with rectangular cutouts for the insertion of the arms of a vehicle, for example a skid steer loader. The extensions 24 and 25 are angled to assist the connection with a vehicle.

[13] FIG. 3 shows the curved front surface 11 that makes contact with the wall of the swimming pool, ditch, etc. and forms the smoothed out walls. The base 12 is where dirt may accumulate as the invention is lowered to the bottom surface of the swimming pool wall. Support structures 13, 14 and 15 are shown from an overhead view.

[14] FIG.4 is a front perspective view of the attachment. The curved front surface 11 makes direct contact with the swimming pool walls.

[15] FIG. 5 is a bottom perspective. The curved front surface 11 as well as the base 12 are shown.

[16] FIG.6 is a rear perspective view that shows the vertical location of the base 12 relative to the curved front surface 11 and the sides 16 and 17. This vertical distance allows the invention to collect dirt at the bottom of the swimming pool after being lowered and to drag the dirt for collection or to be spread along the swimming pool bottom.

[17] FIG. 7 shows a side plane view of the attachment and shows how the extension 24 is angled toward where the skidsteer loader is inserted. Also, the curved front surface 11 is shown.

[18] FIG.8 illustrates a conventional skidsteer loader attached to the invention. The connecting frame 18 is against the skidsteer loader and curved front surface 11 is directed toward the swimming pool wall or ditch wall. The base 12 is parallel to the ground.

SEQUENCE LISTING

[20] Not Applicable



PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

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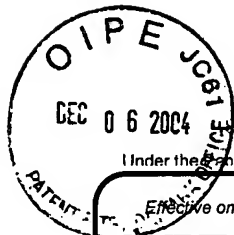
TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/758,514	
	Filing Date	01/15/2004	
	First Named Inventor	Wollgast et. al.	
	Art Unit	3671	
	Examiner Name	Nathan S. Mammen	
Total Number of Pages in This Submission	45	Attorney Docket Number	03005

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
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<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
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Firm Name	Machetta Law Firm, P.C.	
Signature		
Printed name	Gary M. Machetta	
Date	12/2/04	Reg. No. 53,251

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PTO/SB/17 (11-04)

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Effective on 10/01/2004. Patent fees are subject to annual revision.

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$) 124

Complete if Known

Application Number	<u>10/758,514</u>
Filing Date	<u>01/15/04</u>
First Named Inventor	<u>James Wallyast</u>
Examiner Name	<u>Nathan S. Mammor</u>
Art Unit	<u>3671</u>
Attorney Docket No.	<u>03005</u>

METHOD OF PAYMENT (check all that apply)

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FEE CALCULATION

1. BASIC FILING FEE

Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid(\$)
Utility Filing Fee	790	395	
Design Filing Fee	350	175	
Plant Filing Fee	550	275	
Reissue Filing Fee	790	395	
Provisional Filing Fee	160	80	

Subtotal (1) \$

FEE CALCULATION (continued)

2. EXTRA CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20	18	9
Each independent claim over 3	88	44
Multiple dependent claims	300	150
For Reissues, each claim over 20 and more than in the original patent	18	9
For Reissues, each independent claim more than in the original patent	88	44

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
<u>24</u>	- 20 or HP = <u>4</u>	x <u>9</u>	= <u>36</u>

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
<u>5</u>	- 3 or HP = <u>2</u>	x <u>44</u>	= <u>88</u>

HP = highest number of independent claims paid for, if greater than 3

Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)

Subtotal (2) \$ 124

3. OTHER FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid(\$)
1-month extension of time	110	55	
2-month extension of time	430	215	
3-month extension of time	980	490	
4-month extension of time	1,530	765	
5-month extension of time	2,080	1,040	
Information disclosure stmt. fee	180	180	
37 CFR 1.17(q) processing fee	50	50	
Non-English specification	130	130	
Notice of Appeal	340	170	
Filing a brief in support of appeal	340	170	
Request for oral hearing	300	150	
Other:			

Subtotal (3) \$

SUBMITTED BY

Signature	<u>[Signature]</u>	Registration No. (Attorney/Agent)	<u>53,251</u>	Telephone	<u>202-301-2005</u>
Name (Print/Type)	<u>Gary M. Machuth</u>	Date	<u>12/2/04</u>		

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